Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-39 (cancelled).

Claim 40 (currently amended). An optical microelectromechanical structure (MEMS) comprising:

(i) at least one optically transmissive layer (UTL);

(ii) at least one intermediate layer structure (IL);

(iii) at least one device layer (DL); and

(iv) a sealed package

wherein the intermediate layer structure (IL) facilitates one or more optical paths (OP) between the optically transmissive layer (UTL) and the device layer (DL) and wherein the intermediate structure layer (IL) defines a distance (d) between the optically transmissive layer (UTL) and the device layer (DL) within a range of 10-1000 micrometers.

Claim 41 (currently amended). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises at least one electrically insulating layer having a thickness in the range 0.1-3 micrometers.

Claim 42 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises a plurality of sub-layers.

Claim 43 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 42, wherein at least one of the sub-layers comprises an electrically insulating layer.

Claim 44 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises one unitary layer structure.

Claim 45 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 44, wherein the unitary layer structure comprises a plate structure having at least one opening means forming part of the one or more optical paths (OP).

Claim 46 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 45, wherein the at least one opening means comprises one opening forming part of the optical paths (OP).

Claim 47 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 45, wherein the at least one opening means comprises a plurality of apertures (AP).

Claim 48 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 45, wherein the at least one opening means comprises a plurality of apertures (AP) each forming part of one individual optical path (OP).

Claim 49 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises a plurality of layer structures.

Claim 50 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 49, wherein the plurality of layer structures comprise columns.

Claim 51 (currently amended). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the device layer (DL) is attached to a base layer (BL).

Claim 52 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the extent of the shortest individual optical paths (OP) between the optically transmissive layer (UTL) and the device layer (DL) equals the thickness of the intermediate layer structure (IL).

Claim 53 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 51, wherein the extent of the said shortest individual optical paths (OP) between the optically transmissive layer (UTL) and the base layer (BL) equals the thickness of the combined intermediate layer structure (IL) and the device layer (DL) in combination.

Claim 54 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 51, wherein the base layer (BL) is optically transmissive.

Claim 55 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 51, wherein the base layer (BL) is optically non-transmissive and provided with through-holes.

Claim 56 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the device layer (DL) comprises movable parts of actuators.

Claim 57 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises a handle layer and an insulating layer of a SOI wafer.

Claim 58 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the optically transmissive layer (UTL) comprises micro lenses.

Claim 59 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 51, wherein the base layer (BL) comprises micro lenses.

Claim 60 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the optically transmissive layer, intermediate layer structure and device layer are mutually joined.

Claim 61 (previously presented). The optical microelectrochemical structure (MEMS) according to claim 40, wherein the optically transmissive layer, intermediate layer structure and device layer are plane layers.

Claim 62 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the intermediate layer structure (IL) comprises silicon oxide, silica, quartz, glass, aluminum, sapphire, silicon, nickel, PMMA and/or combinations thereof.

Claim 63 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the optically transmissive layer (UTL) comprises Pyrex glass, quartz, silica, aluminum, sapphire, silicon, PMMA and/or combinations thereof.

Claim 64 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, wherein the device layer (DL) comprises silicon of any doping or nickel.

Claim 65 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 42, wherein the electrically insulating layer comprises silica, quartz, glass, aluminum, sapphire, silicon nitride, PMMA and/or combinations thereof.

Claim 66 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 40, further comprising at least one light modulator arrangement and electrical connections, wherein the light modulator arrangement includes at least one movable microshutter having at least one open and at least one closed position and wherein the at least one optical path guides light through the optical MEMS structure via the at least one light modulator arrangement, and wherein the electrical connections are adapted for transmission of electrical control signal to and optionally from the at least one light modulator arrangement.

Claim 67 (previously presented). The optical microelectromechanical structure (MEMS) according to claim 66, wherein light transmitted in the at least one optical path (OP) is focused in or in the vicinity of a shutter plane of the light modulator arrangement.

Claim 68 (currently amended). A method of manufacturing an optical microelectromechanical structure (MEMS) by bonding at least one optically transmissive layer with at least one intermediate layer structure (IL), and at least one device layer (DL) to form a sealed package, whereby optical transmission is facilitated between the optically transmissive layer (UTL) and the device layer (DL) by removal of at least a part of the intermediate layer structure (IL) and whereby the distance between the transmissive layer (UTL) and the device layer (DL) is defined by the thickness of the intermediate layer structure within a range of 10-1000 micrometers.

Claim 69 (previously presented). The method according to claim 68, whereby structural parts of the MEMS are formed by etching the device layer (DL).

Claim 70 (currently amended). The method according to claim 69, whereby the intermediate layer structure (IL) further comprises at least one electrically insulating layer having a thickness in the range of 0.1-3 micrometers and whereby a lossless transmission of light is facilitated between the optically transmissive layer and device layer (DL) by removal of at least a part of the intermediate layer structure (IL).

Claim 71 (previously presented). The method according to claim 70, whereby the removal is performed by etching of the intermediate layer structure (IL).

Claim 72 (previously presented). The method according to claim 68, whereby the optically transmissive layer, intermediate structure layer and device layer are mutually joined.